Please amend the following paragraphs in the Specification according to the following marked-up paragraphs.

[0015] This object is achieved by a method for setting a hearing aid system, comprising: providing a first and a second hearing aid device; providing at least one input transducer for each of the first and second hearing aid device; receiving an acoustic input signal by the input transducer and converting the acoustic input signal into an electrical ~~electric~~ signal by the input transducer; processing the electrical signal by a signal processing unit and converting the processed electrical signal into an output signal by an output transducer; providing a signal path for data transmission between the first and second hearing aid device; determining a signal transit time of the electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device; transmitting a signal via the signal path for data transmission from the first hearing aid device to the second hearing aid device related to the determined signal transit time; and adapting a signal transit time of the electrical signal in a signal path between the input transducer and the output transducer of the second hearing aid device to the determined signal transit time in the first hearing aid device based on the transmitted signal.

[0023] Transit time differences between the two hearing aid devices of a hearing aid system particularly arise due to different settings of the hearing aid devices during operation. These different settings can be conditioned, for example, by a different hearing loss of the two ears of a hearing aid user. In addition to adapting to the user, the settings of a hearing aid device can also serve for adaptation to the respective ambient situation in which the hearing aid

device is located at the moment. Since these latter settings ensue adaptively and automatically given modern hearing aid ~~aide~~ devices, the transit time differences during operation of the hearing aid devices can fluctuate.

[0041] The value of a change in amplification at a hearing aid device according to an embodiment can be permanently allocated to specific settings of functions of the hearing aid device. Given, for example, an algorithm for feedback suppression, a reduction of the gain by 10 dB can thus always be provided. As soon as the algorithm is activated, data for characterizing this change in amplification can then be transmitted onto the other hearing aid device of the hearing aid system, so that a corresponding gain reduction can also be implemented thereat.

[0054] As warranted, specific functions or algorithms can also be switched on or, respectively, off. When speech is recognized in the hearing aid device, thus, a algorithm for voice boosting can be set, or an algorithm for noise elimination can be activated when unwanted noises are recognized. A plurality of different settings and functions that usually influence the signal transit time of a signal through the hearing aid device 11 are thus possible. ~~possible,~~ The signal transit time may therefore automatically be determined in the hearing aid device 11 taking the current settings and functions into consideration.

This listing of claims will replace all prior versions, and listings, of claims in the application

LISTING OF CLAIMS

1. (amended) A method for setting a hearing aid system, comprising:

providing a first and a second hearing aid device;

providing at least one input transducer for each of the first and second hearing aid device;

receiving an acoustic input signal by the input transducer and converting the acoustic input signal into an electrical ~~electric~~ signal by the input transducer;

processing the electrical signal by a signal processing unit and converting the processed electrical signal into an output signal by an output transducer;

providing a signal path for data transmission between the first and second hearing aid device;

determining a signal transit time of the electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device;

transmitting a signal via the signal path for data transmission from the first hearing aid device to the second hearing aid device related to the determined signal transit time; and

adapting a signal transit time of the electrical signal in a signal path between the input transducer and the output transducer of the second hearing aid device to the determined signal transit time in the first hearing aid device based on the transmitted signal.

2. (previously presented) The method according to claim 1, further comprising:

determining a signal transit time needed for passage of an electrical signal through a sub-region of the signal path between the input transducer and the output transducer of the first hearing aid device.

3. (previously presented) The method according to claim 1, wherein the signal transit time of the electrical signal in the first hearing aid device is automatically determined, and a signal is transmitted onto the second hearing aid device.

4. (previously presented) The method according to claim 1, wherein determining the signal transit time of the electrical signal in the first hearing aid device further comprises:

determining an envelope of the electrical signal; and

calculating a phase shift for determined envelopes of the electrical signal for determining the signal transit time.

5. (previously presented) The method according to claim 1, further comprising:

applying a correlation analysis for determining the signal transit time.

6. (previously presented) The method according to claim 1, further comprising:

generating a test signal for determining the signal transit time, the test signal at least partially traversing the signal path between the input transducer and the output transducer of the first hearing aid device.

7. (previously presented) The method according to claim 1, further comprising:

determining a signal transit time of an electrical signal in a signal path between the input transducer and the output transducer of the second hearing aid device; and

transmitting a signal via the signal path for data transmission from the second hearing aid device to the first hearing aid device related to the determined signal transit time of the second hearing aid device.

8. (previously presented) The method according to claim 7, further comprising:

determining which is the shortest of: a) the signal transit time in the first hearing aid device, and b) the signal transit time in the second hearing aid device; and

introducing a signal delay in the hearing aid device determined to have the shortest signal transit time.

9. (previously presented) The method according to claim 1, further comprising:

providing digital circuit technology for the signal processing unit; and

adapting a clock frequency of at least one digital component for adapting the signal transit time.

10. (previously presented) The method according to claim 1, further comprising:

setting a filter of the first hearing aid device for adapting the signal transit time.

11. (previously presented) The method according to claim 1, further comprising:

periodically determining the signal transit time and adapting the signal transit time.

12. (previously presented) The method according to claim 1, further comprising:

implementing at least one of a parameter and a function change in at least one of the first and second hearing aid devices; and

the determining of the signal transit time and adapting of the signal transit time follow the implementing of the at least one of the parameter and the function change.

13. (previously presented) The method according to claim 1, further comprising:

providing a plurality of parallel frequency channels for the signal processing, wherein the determining of the signal transit time and the adapting of the signal transit time ensue in at least one of the frequency channels.

14. (amended) A method for setting a hearing aid system, comprising:

providing a first and a second hearing aid device;

providing at least one input transducer for each of the first and second hearing aid device;

receiving an acoustic input signal by the input transducer and converting the acoustic input signal into an electrical ~~electric~~ signal by the input transducer;

processing the electrical signal by a signal processing unit and converting the processed electrical signal into an output signal by an output transducer;

providing a signal path for data transmission between the first and second hearing aid device;

determining an amplification value or a change in amplification value of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device;

transmitting a signal, via the signal path for data transmission to the second hearing aid device, related to the determined amplification value or change in amplification value; and

adapting an amplification of an electrical signal in a signal path between the input transducer and output transducer of the second hearing aid device according to the determined amplification value or change in amplification value determined for the first hearing aid device.

15. (previously presented) The method according to claim 14, further comprising:

determining an amplification or amplification change of the electrical signal for a sub-region of the signal path between the input transducer and the output transducer of the first hearing aid device.

16. (previously presented) The method according to claim 14, wherein the amplification or amplification change of the electrical signal in the first hearing aid device is automatically determined, and a signal is transmitted onto the second hearing aid device.

17. (previously presented) The method according to claim 14, further comprising:

generating a test signal for determining the amplification or amplification change, the test signal at least partially traversing the signal path

between the input transducer and the output transducer of the first hearing aid device.

18. (previously presented) The method according to claim 14, further comprising:

utilizing at least one of signal amplitudes and signal levels of the electrical signal for determining the amplification or amplification change.

19. (previously presented) The method according to claim 14, further comprising:

determining an amplification or amplification change of an electrical signal in a signal path between the input transducer and the output transducer of the second hearing aid device; and

transmitting a signal via the signal path for data transmission from the second hearing aid device to the first hearing aid device related to the determined amplification or amplification change of the second hearing aid device.

20. (previously presented) The method according to claim 14, further comprising:

setting a filter of the first hearing aid device for adapting the amplification.

21. (previously presented) The method according to claim 14, further comprising:

periodically determining the amplification or amplification change and adapting the amplification.

22. (previously presented) The method according to claim 14, further comprising:

implementing at least one of a parameter and a function change in at least one of the first and second hearing aid devices; and

the determining of the amplification and adapting of the amplification follow the implementing of the at least one of the parameter and the function change.

23. (previously presented) The method according to claim 14, further comprising:

providing a plurality of parallel frequency channels for the signal processing, wherein the determining the determining the amplification and adapting the amplification ensue in at least one of the frequency channels.

24. (amended) A method for setting a hearing aid system, comprising:

providing a first and a second hearing aid device;

providing at least one input transducer for each of the first and second hearing aid device;

receiving an acoustic input signal by the input transducer and converting the acoustic input signal into an electrical ~~electric~~ signal by the input transducer;

processing the electrical signal by a signal processing unit and converting the processed electrical signal into an output signal by an output transducer;

providing a signal path for data transmission between the first and second hearing aid device;

determining a signal amplitude of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device;

transmitting a signal, via the signal path for data transmission to the second hearing aid device, related to the determined signal amplitude; and

adapting an amplification of an electrical signal in a signal path between the input transducer and output transducer of the second hearing aid device according to the determined signal amplitude determined for the first hearing aid device.

25. (previously presented) The method according to claim 24, wherein the signal amplitude of the electrical signal in the first hearing aid device is automatically determined, and a signal is transmitted onto the second hearing aid device.

26. (previously presented) The method according to claim 24, further comprising:

generating a test signal for determining the signal amplitude, the test signal at least partially traversing the signal path between the input transducer and the output transducer of the first hearing aid device.

27. (previously presented) The method according to claim 24, further comprising:

determining a signal amplitude of an electrical signal in a signal path between the input transducer and the output transducer of the second hearing aid device; and

transmitting a signal via the signal path for data transmission from the second hearing aid device to the first hearing aid device related to the determined signal amplitude of the second hearing aid device.

28. (previously presented) The method according to claim 24, further comprising:

setting a filter of the first hearing aid device for adapting the signal amplitude.

29. (previously presented) The method according to claim 24, further comprising:

periodically determining the signal amplitude and adapting the signal amplitude.

30. (previously presented) The method according to claim 24, further comprising:

implementing at least one of a parameter and a function change in at least one of the first and second hearing aid devices; and

the determining of the signal amplitude and adapting of the signal amplitude follow the implementing of the at least one of the parameter and the function change.

31. (previously presented) The method according to claim 24, further comprising:

providing a plurality of parallel frequency channels for the signal processing, wherein the determining of the signal amplitude and the adapting of the signal amplitude ensue in at least one of the frequency channels.

32. (previously presented) A hearing aid system, comprising:

a first and a second hearing aid device, each of which comprise:

an input transducer for the pick-up of an acoustic input signal and conversion thereof into an electrical signal;

a signal processing unit for processing the electrical signal; and

an output transducer for converting the electrical signal into an output signal;

the hearing aid system further comprising a signal path for data transmission between the first and second hearing aid device;

the first hearing aid device further comprising:

a measuring mechanism configured to measure a signal transit time of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing device; and

a transmitter for transmitting the measured signal transit time from the first hearing aid device to the second hearing aid device over the signal path for data transmission;

the second hearing aid device further comprising:

a receiver for receiving the transmitted measured signal transit time; and

an adapting mechanism configured for adapting a signal transit time in a signal path between the input transducer and the output transducer of the second hearing aid device based on the received measured signal transit time.

33. (previously presented) The hearing aid system according to claim 32, wherein the measuring mechanism further comprises a correlator configured to perform a correlation analysis on the electrical signal.

34. (previously presented) The hearing aid system according to claim 32, wherein at least one of the first and second hearing aid devices comprises a signal delay mechanism.

35. (previously presented) The hearing aid system according to claim 32, wherein the signal processing units of the first and of the second hearing aid device comprise digital circuit technology and a clock, and at least one of the first and second hearing aid devices further comprises a clock control.

36. (previously presented) The hearing aid system according to claim 32, further comprising:

a plurality of parallel frequency channels for the first and second hearing aid devices in which the signal processing occurs;

wherein

the measuring mechanism of at least the first hearing aid device is configured to measure the signal transit time in at least one frequency channel; and

the adapting mechanism of at least the second hearing aid device is configured to adapt the signal transit time in at least one frequency channel.

37. (previously presented) The hearing aid system according to claim 32, wherein:

the first hearing aid device further comprises at least one transmission unit configured to wirelessly transmit data to the second hearing aid device; and

the second hearing aid device further comprises at least one reception unit configured to wirelessly receive data from the first hearing aid device.

38. (previously presented) The hearing aid system according to claim 32, wherein at least the first hearing aid device further comprises a test signal generator.

39. (previously presented) A hearing aid system, comprising:

a first and a second hearing aid device, each of which comprise:

an input transducer for the pick-up of an acoustic input signal and conversion thereof into an electrical signal;

a signal processing unit for processing the electrical signal; and

an output transducer for converting the electrical signal into an output signal;

the hearing aid system further comprising a signal path for data transmission between the first and second hearing aid device;

the first hearing aid device further comprising:

a measuring mechanism configured to measure an amplification or amplification change of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing device; and

a transmitter for transmitting the measured amplification or amplification change from the first hearing aid device to the

second hearing aid device over the signal path for data transmission;

the second hearing aid device further comprising:

a receiver for receiving the transmitted measured amplification or amplification change; and

an adapting mechanism configured for adapting an amplification in a signal path between the input transducer and the output transducer of the second hearing aid device based on the received measured amplification or amplification change.

40. (previously presented) The hearing aid system according to claim 39, further comprising:

a plurality of parallel frequency channels for the first and second hearing aid devices in which the signal processing occurs;

wherein

the measuring mechanism of at least the first hearing aid device is configured to measure the amplification or amplification change in at least one frequency channel; and

the adapting mechanism of at least the second hearing aid device is configured to adapt the amplification in at least one frequency channel.

41. (previously presented) The hearing aid system according to claim 39, wherein:

the first hearing aid device further comprises at least one transmission unit configured to wirelessly transmit data to the second hearing aid device; and

the second hearing aid device further comprises at least one reception unit configured to wirelessly receive data from the first hearing aid device.

42. (previously presented) The hearing aid system according to claim 39, wherein at least the first hearing aid device further comprises a test signal generator.

43. (previously presented) A hearing aid system, comprising:

a first and a second hearing aid device, each of which comprise:

an input transducer for the pick-up of an acoustic input signal and conversion thereof into an electrical signal;

a signal processing unit for processing the electrical signal; and

an output transducer for converting the electrical signal into an output signal;

the hearing aid system further comprising a signal path for data transmission between the first and second hearing aid device;

the first hearing aid device further comprising:

a measuring mechanism configured to measure a signal amplitude of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing device; and

a transmitter for transmitting the measured signal amplitude from the first hearing aid device to the second hearing aid device over the signal path for data transmission;

the second hearing aid device further comprising:

a receiver for receiving the transmitted measured signal amplitude; and

an adapting mechanism configured for adapting a signal amplitude in a signal path between the input transducer and the output transducer of the second hearing aid device based on the received measured signal amplitude.

44. (previously presented) The hearing aid system according to claim 43, further comprising:

a plurality of parallel frequency channels for the first and second hearing aid devices in which the signal processing occurs;

wherein

the measuring mechanism of at least the first hearing aid device is configured to measure the signal amplitude in at least one frequency channel; and

the adapting mechanism of at least the second hearing aid device is configured to adapt the signal amplitude in at least one frequency channel.

45. (previously presented) The hearing aid system according to claim 43, wherein:

the first hearing aid device further comprises at least one transmission unit configured to wirelessly transmit data to the second hearing aid device; and

the second hearing aid device further comprises at least one reception unit configured to wirelessly receive data from the first hearing aid device.

46. (previously presented) The hearing aid system according to claim 43, wherein at least the first hearing aid device further comprises a test signal generator.

47. (previously presented) A hearing aid system, comprising:

a first and a second hearing aid device, each of which comprise:

an input transducer for the pick-up of an acoustic input signal and conversion thereof into an electrical signal;

a signal processing unit for processing the electrical signal; and

an output transducer for converting the electrical signal into an output signal;

the hearing aid system further comprising a signal path for data transmission between the first and second hearing aid device;

the first hearing aid device further comprising:

a memory configured for storing data related to a signal transit time of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device; and

a transmitter configured for transmitting data related to a signal transit time of an electrical signal in a signal path between the input transducer and the output transducer of the first hearing aid device;

the second hearing aid device further comprising:

a receiver configured for receiving the transmitted data; and

an adapting mechanism configured for adapting a signal transit time in a signal path between the input transducer and the output transducer of the second hearing aid device based on the received transmitted data.

48. (previously presented) The hearing aid system according to claim 47, wherein the first hearing aid device further comprises:

a plurality of parameter sets for adapting the signal processing in the first hearing aid device to different hearing situations;

a memory for storing the plurality of parameter sets in the first hearing aid device;

a setting mechanism for setting values of the parameter sets; and

a mechanism for allocating data with respect to the signal transit time of an electrical signal in the signal path between the input transducer and the output transducer of the first hearing aid device to at least one parameter set.

REMARKS

The present amendment corrects minor typographical errors in the originally filed application. No new matter has been added thereby. The amendment of claims is not intended to be a surrender of any of the subject matter of those claims.

Early examination on the merits is respectfully requested.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on August 27, 2003.

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